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importance of continuous preventive strategies to mitigate risks and impacts of the disease in infants.

Keywords: Pertussis, Infants, Epidemiology.

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CORRELATION BETWEEN COLONIZATION BY KLEBSIELLA PNEUMONIAE KPC IN SURVEILLANCE CULTURES AND IN-HOSPITAL DEATH: A RETROSPECTIVE STUDY IN CRITICALLY ILL PATIENTS

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Introduction and objective: Carbapenemase-producing *Klebsiella pneumoniae* (*K. pneumoniae*) (KPC) is a multidrug-resistant pathogen with high clinical impact. Although often initially detected by surveillance cultures (SCs), colonization may precede or be associated with severe infectious conditions, increasing in-hospital mortality. Understanding the correlation between colonization and clinical outcome is essential for therapeutic decisions and prevention actions. The objective of this study is to evaluate the association between colonization by *K. pneumoniae* KPC, identified in surveillance cultures, and the outcome of in-hospital death in patients admitted to critical care units.

Methods: Retrospective observational study conducted in a public hospital in the municipality of São Paulo between July 2020 and May 2025. Patients with colonization by *K. pneumoniae* KPC detected in surveillance cultures were included. Clinical, microbiological, and death data were collected through laboratory data and electronic medical records. The association between colonization and death was evaluated by descriptive analysis and proportion calculation.

Results: In total, there were 490 patients colonized by KPC, of whom 187 (38.2%) were discharged and 303 (61.8%) died. Among these deaths, 220 (72.06%) patients had documented infection. Thus, the mortality rate of colonized patients who developed infection by KPC was 44.8%.

Conclusion: Although this study cannot define whether mortality is directly related to KPC colonization or to the severity profile of patients, a higher rate of deaths (61.8%) than discharges (38.2%) was observed among them.

Therefore, this risk should be prioritized, especially in critically ill patients, especially because colonization by *K. pneumoniae* KPC, in the presence of subsequent clinical infection, was associated with these in-hospital deaths. Active surveillance allows early identification, but it is necessary to expand investigation of the role of colonization in mortality of patients colonized by *K. pneumoniae* KPC.

Keywords: Surveillance Cultures, Colonization, KPC.

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GENOTYPE-PHENOTYPE CORRELATION AND DETECTION OF THE RESISTANCE GENES MECA, VANA AND VANB IN STAPHYLOCOCCUS SPP. AND ENTEROCOCCUS SPP. IN INFECTIONS RELATED TO ORTHOPEDIC FRACTURES IN BRAZIL: AN OBSERVATIONAL, MULTICENTER COHORT STUDY

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Introduction: Multidrug-resistant (MDR) *Staphylococcus* spp. and *Enterococcus* spp. are pathogens frequently